



APR 16 2004

PTO/SB/21 (02-04)
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TRANSMITTAL
FORM

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/811,085	
	Filing Date	March 25, 2004	
	First Named Inventor	Feng Liang	
	Art Unit		
	Examiner Name		
Total Number of Pages in This Submission	9+	Attorney Docket Number	FGT 3G4 (81099482)

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Recordation Cover Sheet, Assignment PTO-1449 Form Copy of Japanese Reference
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	John D. Russell, Registration No. 47,048 Kelsch Harwell, P.C.
Signature	
Date	April 13, 2004

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Lauren Barberena		
Signature			
	Date	April 13, 2004	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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FEE TRANSMITTAL for FY 2004 <small>Effective 10/01/2003. Patent fees are subject to annual revision.</small>		Complete if Known	
<input checked="" type="checkbox"/> <small>Applicant claims small entity status. See 37 CFR 1.27</small>		Application Number	10/811,085
		Filing Date	March 25, 2004
		First Named Inventor	Feng Liang
		Examiner Name	
		Art Unit	
		Attorney Docket No.	FGT 3G4 (81099482)
TOTAL AMOUNT OF PAYMENT	(\$)	40.00	

METHOD OF PAYMENT (check all that apply)					FEE CALCULATION (continued)				
<input type="checkbox"/> Check	<input type="checkbox"/> Credit card	<input type="checkbox"/> Money Order	<input type="checkbox"/> Other	<input type="checkbox"/> None					
<input checked="" type="checkbox"/> Deposit Account: Deposit Account Number: 06-1510 Deposit Account Name: Ford Global Technologies, LLC									
The Director is authorized to: (check all that apply) <input checked="" type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input type="checkbox"/> Charge any additional fee(s) or any underpayment of fee(s) <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.									
FEE CALCULATION									
1. BASIC FILING FEE									
Large Entity		Small Entity		Fee Description		Fee Paid			
Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Description		Fee Paid			
1001	770	2001	385	Utility filing fee					
1002	340	2002	170	Design filing fee					
1003	530	2003	265	Plant filing fee					
1004	770	2004	385	Reissue filing fee					
1005	160	2005	80	Provisional filing fee					
				SUBTOTAL (1) (\$)		0.00			
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE									
				Fee from below		Fee Paid			
Total Claims		-20** =		18.00	=	0.00			
Independent Claims		-3** =		86.00	=	0.00			
Multiple Dependent				0.00	=	0.00			
				Extra Claims		Fee Paid			
Large Entity		Small Entity		Fee Description					
Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Code (\$)	Fee Description					
1202	18	2202	9	Claims in excess of 20					
1201	86	2201	43	Independent claims in excess of 3					
1203	290	2203	145	Multiple dependent claim, if not paid					
1204	86	2204	43	** Reissue independent claims over original patent					
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent					
				SUBTOTAL (2) (\$)		0.00			
Other fee (specify) _____ *Reduced by Basic Filing Fee Paid									
SUBTOTAL (3) (\$)									

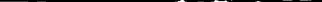
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*Reduced by Basic Filing Fee Paid **SUBTOTAL (3) (\$ 40.00)**

SUBTOTAL (3) **(\$)** 40.00

SUBMITTED BY

(Complete if applicable)

Submitted by John D. Russell (Complete if applicable)
Name (Print/Type) John D. Russell Registration No. (Attorney/Agent) 47,048 Telephone (503) 224-6655
Signature  Date April 13, 2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Date: April 13, 2004

FENG LIANG and
MICHAEL DEGNER

Serial No. : 10/811,085

Filed : March 25, 2004

For : PERMANENT MAGNET ELECTROMAGNETIC ACTUATOR
FOR AN ELECTRONIC VALVE ACTUATION SYSTEM OF
AN ENGINE

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

S i r :

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.56, 1.97, and 1.98

Applicants are submitting this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98 to disclose to the U.S. Patent and Trademark Office the patents, publications, applications, and/or other references listed on the enclosed, completed PTO-1449 form(s). The filing of this Information Disclosure Statement should not be construed as a representation that a search has been made or as an admission that the listed references are prior art for this application. Applicants respectfully request that the listed references be expressly considered during prosecution of the application, and that the references be made of record therein and appear among the "references cited" on any patents issuing therefrom.

This Information Disclosure Statement includes (1) 1 page of PTO-1449 form, and (2) a legible copy of each foreign and non-patent reference, if any, listed on the form. However, because this application was filed on or after July 1, 2003, no

copies of U.S. patents or published U.S. patent applications are included.

FOREIGN-LANGUAGE REFERENCES

A concise explanation of the relevance of each listed reference not in the English language follows:

Japanese Patent No. 2002130510A: This patent purports to disclose to provide an electromagnetic drive valve which reduces the consuming power while suppressing an increase of outer dimensions reasonably.

The electromagnetic drive valve is provided with electromagnets 21 and 22 which have an electromagnetic coil 31 and a core 32, in order to drive a valve body 23 to open or close by applying an electromagnetic force to an armature 26 with the electromagnets 21 and 22. In the core 32 of the electromagnets 21 and 22, a permanent magnet 38 whose dimension is larger than the inside diameter of the electromagnetic coil 31 and smaller than the outside diameter of the electromagnetic coil 31, and which is magnetized so that the surface of the electromagnetic coil 31 side and the opposite side surface provide different magnetic poles, is located with the both end sections facing the electromagnetic coil 31. In the core 32, a gap 39 which continues from the both end sections of the permanent magnet 38 to the outside diameter of the electromagnetic coil 31.

Paragraphs 43 and 45 describe bay shaped permanent magnet 51 and bent magnet 56, each touted as having the advantage that the shape allows for increased surface area on the magnet, thereby increasing the magnetic assist provided by the permanent magnet to the field created by coil 31. This increases the overall efficiency of the system. Paragraph 37 describes permanent magnet 38 as having the same advantage of increased surface area and magnetic assist, since it also extends past the

internal diameter of coil 31, without a need for the height of core 32 to be increased (to allow for downward extension of the magnet).

Paragraph 40 describes connection portion 48, which allows core 46 to be formed of an integral construction. The other embodiments appear to show inner and outer cores 32, 33 constructed as separate structures. Paragraphs 30 and 31 describe cavity 39 as formed immediately below coil 31, such that all magnetic field lines from coil 31 pass through permanent magnet 38, and none pass through cavity 39, which has a low magnetic permeability. Cavity 39 is constructed to extend horizontally from each end of magnet 38 to the outer diameter of coil 31, also preventing magnetic field created by the coil from passing through cavity 39. Through this shape and position of cavity 39, the pulling power of permanent magnet 38 and coil 31 is increased.

TIMING OF DISCLOSURE / FEE INFORMATION

This Information Disclosure Statement is being filed either (1) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d), or (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application. Therefore, in accordance with 37 C.F.R. § 1.97(b), no fee or statement under 37 C.F.R. § 1.97(e) is required.

Please contact the undersigned with any questions or comments regarding this Information Disclosure Statement.

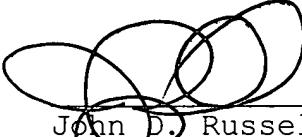
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Lauren Barberena

Respectfully submitted,

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SHEET 1 OF 1